

country, to have been decidedly above, the excess amounting to 9° for Tennessee and the Ohio valley, and diminishing as we proceed thence in all directions, it being 7.°7 for the upper Mississippi, 6.°9 for the lower Missouri, 6.°4 for the Gulf and South Atlantic States, 4.°9 for the Upper Lakes, 5.°4 for the Lower Lakes, 3.°8 for the Middle and Eastern States, 3° for the St. Lawrence valley, 1.°5 for Minnesota.

It should, however, be stated that, although above the average and among the warmest months, yet the past January was, except, perhaps in Kansas, by no means the warmest January of which we have records; thus January, 1828, appears to have been warmer in Tennessee and throughout the Atlantic and Gulf States. The January of 1843 was warmer from New Jersey to Maine, but colder in the southern stations; January, 1855, was warmer in the West and Southwest; January, 1853, was warmer on the Pacific coast.

*Maximum Temperatures.*—The maximum temperature at Pembina was 34°; at Mount Washington, 41°; at Key West, 83°. The maximum of 70° has been reported from stations on the line passing through the centre of Kansas, the southern border of Wisconsin, the lower Ohio valley, the southwest border of Kentucky, and thence north to Erie, Pennsylvania, thence east and then south between Maryland and Delaware to Cape Charles.

*Minimum Temperatures.*—The minimum temperatures have been for northern stations: —43° at Pembina, D. T.; —30° at Mount Washington; —25° at Breckenridge; —17° at Yankton, and for southern stations, 58° at Key West; 43° at Galveston; 39° at New Orleans. Minimum temperatures of 20° have been reported from stations on the line passing through central Texas and Arkansas, the southeast corner of Tennessee and central North Carolina.

*Ranges of Temperatures.*—The least ranges of temperature have been: San Francisco, 22°; Key West, 24°; Galveston, 32°. The greatest ranges have been: Pembina, 77°; Yankton, 76°; Mt. Washington, 71°; Malone, 69°; North Platte, 68°; Evanston, 66°; Boston, Fort Dodge and Colorado Springs, 65°.

## PRECIPITATION.

*Rainfall.*—Chart No. III shows the general distribution of precipitation for the month. The regions of unusually large rain or snow are: lower Ohio valley, central Mississippi, lower Arkansas and Red rivers. Deficiencies are reported throughout the Atlantic States.

*Rainy days.*—From ten to twelve rainy days are reported from Tennessee, the Ohio valley and Lake region and New England. From three to ten rainy days in the South Atlantic and Gulf States.

*Cloudy days.*—From eight to twelve cloudy days are reported from the South Atlantic and Gulf States, and from twelve to sixteen over the Lake region.

## RELATIVE HUMIDITY.

The mean relative humidity for the month averages as follows: Breckenridge 53; Cape May and Cheyenne, 58; Colorado Springs, 39; at Denver, 41; Dodge City, 56; Albany, 85; Alpena, 81; Marquette, 82; Mount Washington, 90; Pembina, 92; Peck's Beech, 82; Rochester, 81.

## WINDS.

*Wind directions.*—The prevailing winds are shown by the arrows upon Chart No. II, from which it will be seen that these have been southwest in the South Atlantic and Middle States, northwest in New England and the Upper Lake region, southerly in the Gulf States, Ohio and Missouri valleys.

*Total movements.*—The sum total of the movements of the air, from all directions, have been: Sandy Hook, 13,160; Erie, 12,991; Grand Haven, 11,762; Long Branch,